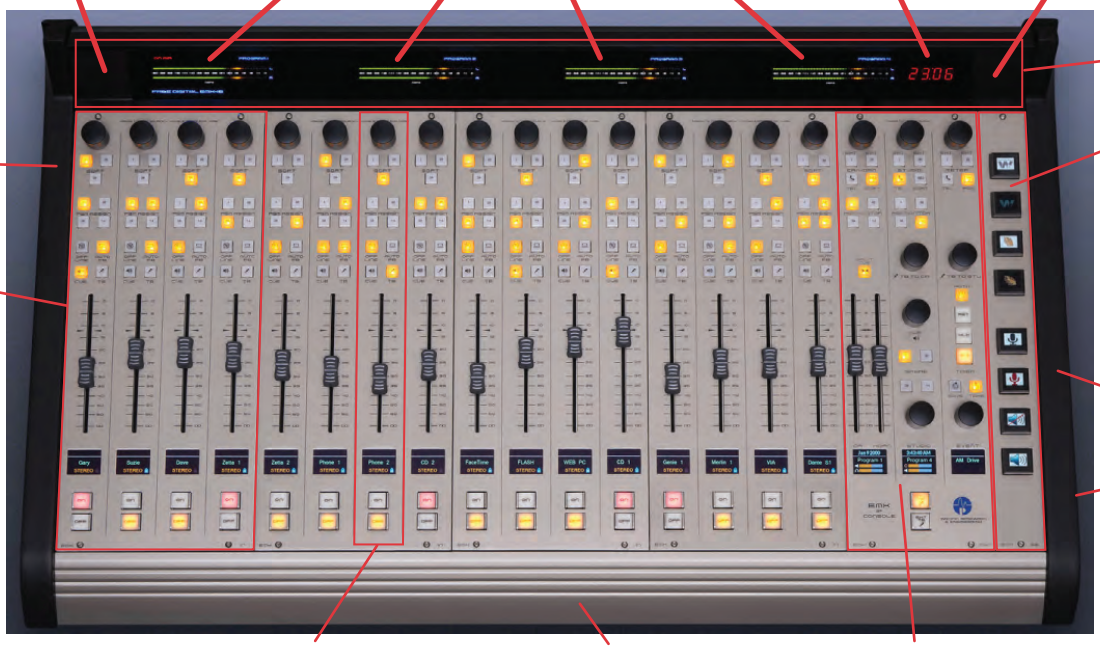
EMX IP CONSOLE
Quick Guide

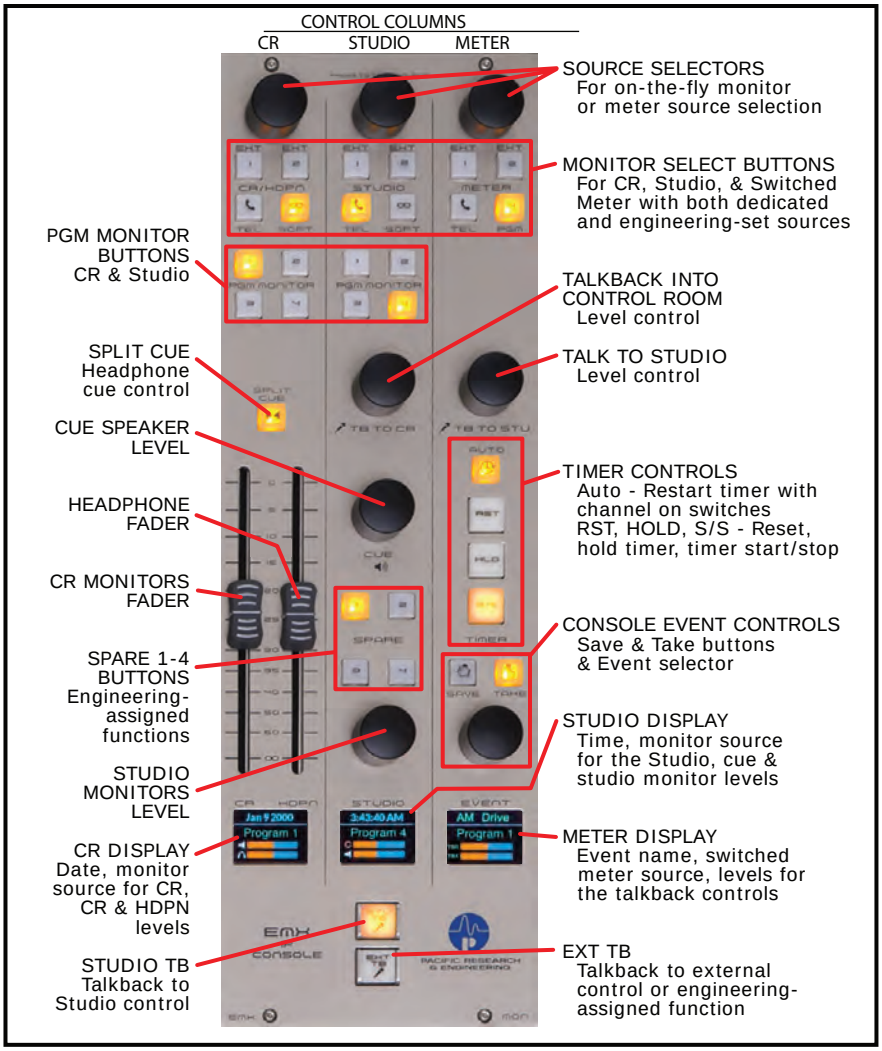
EMX-16: 041290 EMX-16W: 041295
EMX-20: 041291 EMX-20W: 041292
EMX-24: 041293 EMX-24W: 041294

EMX SURFACE PARTS



FADER CHANNEL CONTROLS

MONITOR CONTROL PANEL CONTROLS



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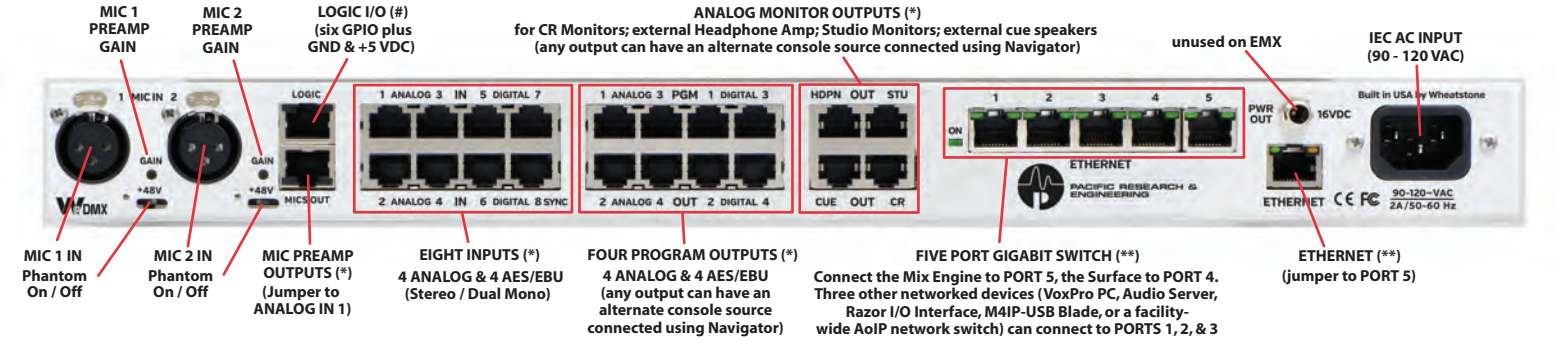
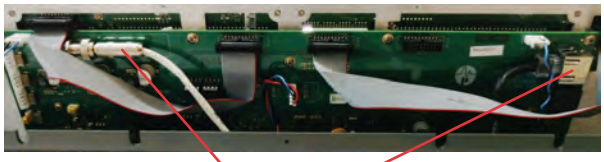
PR&E MIX ENGINE - REAR PANEL CONNECTORS



EMX SURFACE & MIX ENGINE CONNECTIONS

Remove the upper rear cover from the EMX Surface (multiple black #1 Phillips screws) to access the DC power and Ethernet jacks (see photo). Connect the DC Power cable (supplied) between the 1620 Supply and the Surface. Route it up through the bottom chassis opening. Tighten the threaded housing onto the DC jacks to secure the cable. Connect a CAT5e or CAT6 cable (customer-supplied) from the Surface's Ethernet jack to PORT 4 on the Mix Engine's Gigabit switch, routing the cable through a bottom chassis opening. Replace the upper rear cover panel on the Surface.

On the Mix Engine, connect the short Ethernet cable (supplied) between ETHERNET and PORT 5 on the Gigabit switch. Plug in the Mix Engine and the 1620 Supply, using the two IEC AC cords (supplied), into isolated ground AC outlets. It takes about two minutes for the PR&E Mix Engine and EMX Surface to complete their power-up processes and be ready for use.



Surface DC Power & Ethernet Connections

RJ45 JACK WIRING

* STUDIOHUB+ WIRING

RJ45 PIN (WIRE)	SIGNAL
1 (WHT/ORG)	Left + or AES +
2 (ORG)	Left - or AES -
3 (WHT/GRN)	Right +
6 (GRN)	Right -
4, 5, 7, 8	No Connection

\# WNIP LOGIC WIRING

RJ45 PIN (WIRE)	SIGNAL
1 (WHT/ORG)	GND
2 (ORG)	Logic 1
3 (WHT/GRN)	Logic 2
4 (BLU)	Logic 3
5 (WHT/BLU)	Logic 4
6 (GRN)	Logic 5
7 (WHT/BRN)	Logic 6
8 (BRN)	+5 Volts

** ETHERNET WIRING

RJ45 PIN (WIRE)	SIGNAL
1 (WHT/GRN)	TRANSMIT+
2 (GRN)	TRANSMIT-
3 (WHT/ORG)	RECEIVE+
4 (BLU)	N/C
5 (WHT/BLU)	N/C
6 (ORG)	RECEIVE-
7 (WHT/BRN)	N/C
8 (BRN)	N/C

EMX SURFACE & MIX ENGINE CONFIGURATION

The EMX ships with a USB thumb drive with the three software apps (**EMX Surface Setup**, **PR&E Navigator**, and the **PR&E System Configuration Tool**) used to configure and manage your PRE-IP system devices (EMX and DMX consoles and Razor I/O Interfaces). The USB thumb drive also has PDFs of the EMX User Manual and EMX Quick Guide. The EMX apps can be installed on any Windows PC (XP, 7, 8, or 10 using 32- or 64-bit processors). For best performance, the PC needs at least 1 GB of memory and a 1.8 GHz or faster processor. This PC is the "system admin PC." It should also have two NICS: one set to 192.168.87.20 (to connect to the Mix Engine Ethernet switch); the other NIC is set for DHCP to connect to your facility LAN for remote connectivity for system monitoring and remote access by Wheatstone/PR&E engineers. Use a staight-thru CAT5e or CAT6 cable (customer-supplied) to connect the admin PC's NIC with the fixed IP address to a Mix Engine switch (Ports 1, 2, or 3) and connect the NIC using DHCP to your facility's main Ethernet switch or Internet access switch.

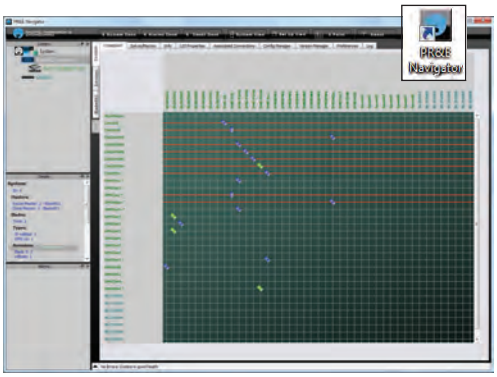
The **PR&E System Configuration Tool** is only needed when multiple EMX and/or DMX consoles and Razor I/O Interfaces are being networked together. Since each type PRE-IP device has the same IP address and device ID when shipped from the factory: Surface = 192.168.87.201; Mix Engine = 192.168.87.101 (Blade ID=1); Razor 16A = 192.168.87.50; Razor 16D = 192.168.87.60; and Razor 16AD = 192.168.87.70, the Config Tool allows you to easily change the default IP address, ID number, and default signal names to unique settings so the new device can connect to an existing PRE-IP system. The app can also be used to reset a configured EMX console back to its factory default settings.

PR&E System Configuration Tool app & desktop icon

The **EMX Surface Setup** app configures the Surface for your application. It links that Surface with a specific Mix Engine; sets which sources are visible on each fader channel and monitor selector; sets the function for each channel "Soft" button and the Monitor panel "Spare" buttons; enables/locks-out access to the Advanced Channel Features; and sets signal options for audio sources (mic muting; identifies Telco devices; sets up Timer Reset; assigns Ready and other logic; etc.).

The **PR&E Navigator** is used for EMX system management and to configure the Mix Engine and Razor signals. It lists all of the PRE-IP devices so their signals can be named; their formats (stereo or mono) can be set; their signal gain adjusted; and logic settings can be assigned. It's also used to connect signals using an X-Y grid or via salvo settings; allows any signal to be remotely monitored (via level meters and listening over AoIP); used to create and take salvos to allow many system routing functions to be done simultaneously; manages the system using a built-in syslogger; controls the system date and time displays; along with multiple other system control functions.

EMX Surface Setup app & desktop icon



PR&E Navigator app and icon